TO CONTACT SCOTTISH ORIGENES FOR A FREE CONSULTATION ON YOUR Y-DNA RESULTS EMAIL DR. TYRONE BOWES: tyronebowes@gmail.com
You can contact Bill Gillen who commissioned the report by email:
clm16901@yahoo.com

Pinpointing the Gillen Paternal Ancestral Genetic Homelands

A Scottish Case Study

www.Scottishorigenes.com

Dr Tyrone Bowes
2nd May 2022

Introduction

A simple painless commercial ancestral Y chromosome DNA test will potentially provide one with the names of many hundreds of individuals with whom one shares a common male ancestor, but what often perplexes people is how one can match lots of individuals with many different surnames? The answer is quite simple. Roughly 900 years ago, one's direct medieval male ancestor, the first for example to take the 'Gillen' surname was living near others with whom he was related but who took other surnames like MacDowall, MacFadden, Ferguson, and McClellan. Given that 900 years have passed since paternally inherited surnames became common, there will be many descendants of those individuals some of whom will today undergo commercial ancestral Y-DNA testing. Hence the surnames of one's medieval ancestor's neighbours will be revealed in today's Y-DNA test results.

Early 19th century census data demonstrates that Irish and Scottish surnames could still be found concentrated in the areas from which they originated. One can therefore use census data to determine the origin of the surnames that appear in one's Y-DNA results, identifying an area common to all, and reveal ones '**Paternal Ancestral Genetic Homeland**.' The genetic homeland is the small area (usually within a 5-mile radius) where one's ancestors lived for hundreds if not thousands of years. It is the area where one's ancestor first inherited his surname surrounded by relatives who inherited others. It is the area where ones ancestors left their mark in its placenames, its history, and in the DNA of its current inhabitants. Since modern science can pinpoint a paternal ancestral genetic homeland, it can also be used to confirm it by DNA testing individuals from the pinpointed area.

Notes of caution!

1. Science has demonstrated that each of the estimated 1,500 unique Irish surnames had a single founding male ancestor (a Surname-Adam), which is an estimated 1,500 Adams from whom anyone with Irish ancestry (and with one of those unique surnames) can trace direct descent. But science has also demonstrated that only 50% of males with an Irish surname will be related to their surnames founding ancestor, the other 50% of people will have an association that has arisen because of what are called 'non-paternal events,' usually a result of adoptions or maternal transfer of the surname. Since Scotland adopted a similar clan-based society these scientific findings can be applied to Scotland and people with Scottish paternal ancestry.
2. Often people are looking for their DNA results to trace back to a specific area. One must remember that the results typically reflect one's ancestor's neighbours from around 1,000 years ago (when surnames first appeared). As a result, if one's Scottish ancestor was descended from an Irish or Anglo-Saxon settler, Viking raider, or 12th Century Conquering Norman, one's DNA results will reflect earlier Irish, English, Welsh, French, and possibly Scandinavian origin. One must approach this process with an open mind!

Interpreting the Y-DNA test results

To pinpoint a paternal ancestral genetic homeland, one must first identify the surnames that appear as one's closest genetic matches upon commercial ancestral Y-DNA testing. Those surnames, particularly ones that recur among one's closest genetic relatives will typically reflect the surnames of one's medieval ancestor's neighbours. Mr. Gillen's closest and most frequent genetic surname matches as revealed upon commercial ancestral Y-DNA STR and SNP testing are detailed in **Figures 1**, **2**, **3**, and **4**.

67 Y-DNA STR Markers							
Surname	Match Date	Markers Tested	Genetic Distance	Big Y STR Differences	Y-DNA Haplogroup	Paternal Country of Origin	Earliest Known Ancestor
McElroy	September 30 2021	1 to 67	2	Not Available	R-M269	Ireland	Robert McIlroy, B 1820 Co. Antrim Ireland D 1909
Ryan	September 30 2021	1 to 67	4	Not Available	R-M269	Ireland	
Daugherty	September 30 2021	1 to 700	4	16 of 598	R-BY167265	Ireland	Ambrose Cunningham, Co.Sligo, Ireland, b. 1800, d.
Hagerty	January 21 2022	1 to 67	5	Not Available	R-M269	Ireland	John Haggerty, 1770
McDonald	September 30 2021	1 to 67	5	Not Available	R-M269	United States	Aaron G. McDonald, b. 1850
Collins	September 30 2021	1 to 111	5	Not Available	R-M269	United States	William Jackson Collins 1806-1882, SC
McDowell	September 30 2021	1 to 67	5	Not Available	R-M269	Unknown Origin	Alexander Underwood, b. 1688 and d. 1767
Carr	September 30 2021	1 to 111	5	Not Available	R-M269	Unknown Origin	
English	September 30 2021	1 to 67	5	Not Available	R-M269	Ireland	[E-15] Nathaniel Jerome English 1784;Broome Co, NY
McDowell	September 30 2021	1 to 111	5	Not Available	R-FGC8739	Unknown Origin	
Moore	September 30 2021	1 to 111	5	Not Available	R-M269	United States (Native American)	John Moore SR abt 1779 South Carolina
Malloy	September 30 2021	1 to 111	5	Not Available	R-M269	Ireland	Michael Maloy, b. ~1814 Ireland, d. 1870 New York
Quinn	September 30 2021	1 to 111	5	Not Available	R-M269	Ireland	Mr. Desmond Quinn, b. 1926
Maney	September 30 2021	1 to 67	5	Not Available	R-FGC8739	Ireland	Jeremiah Mahony, b. about 1772 Crookhaven, Cork
McDowell	September 30 2021	1 to 67	5	Not Available	R-M269	Unknown Origin	Richard McDowell b. 1790 d. 1870
Carson	September 30 2021	1 to 700	5	21 of 628	R-FGC68166	Northern Ireland	Alex Carson, b. 1807 and d. 1880, Armagh
Connolly	September 30 2021	1 to 500	5	15 of 613	R-FGC12950	Ireland	
Black	September 30 2021	1 to 111	6	Not Available	R-M269	Northern Ireland	James Black, b. 1818
Webb	September 30 2021	1 to 67	6	Not Available	R-M269	Unknown Origin	
Coleman	September 30 2021	1 to 111	6	Not Available	R-M269	Ireland	Alexander Coleman, b 1820
Lennon	September 30 2021	1 to 111	6	Not Available	R-M269	Unknown Origin	
McGrew	March 11 2022	1 to 111	6	Not Available	R-M269	United States	Martin McGraw b. 1750 PA
McBride	September 30 2021	1 to 67	6	Not Available	R-M269	Northern Ireland	Alexander McBride b. 1730 d. 1794
Monroe	September 30 2021	1 to 67	6	Not Available	R-M269	Unknown Origin	
Dowdy	September 30 2021	1 to 67	6	Not Available	R-M269	Unknown Origin	Richard Dowdy b. ca 1725, SC
McDowell	September 30 2021	1 to 700	6	19 of 664	R-S674	United States	William McDowell, d. 1834
Collins	September 30 2021	1 to 67	6	Not Available	R-M269	Unknown Origin	William Collins, b. 1763 and died 1810
Sweeney	September 30 2021	1 to 111	6	Not Available	R-FGC4077	Ireland	Daniel Swinney died in 1799
McDowell	September 30 2021	1 to 111	6	Not Available	R-M269	Unknown Origin	
MCDOWELL	September 30 2021	1 to 67	6	Not Available	R-M269	Northern Ireland	Thomas McDowell b. 1628 and d. 1682
Melvin	September 30 2021	1 to 111	6	Not Available	R-M269	Unknown Origin	
MacKenzie	September 30 2021	1 to 111	6	Not Available	R-S588	Scotland	Alexander MacKenzie, Lochbroom, Scotland m. 1816

Figure 1: *Snapshot of test subject 'Gillen's' closest genetic surname matches as revealed in a Y-DNA STR database. The more Y-DNA STR markers two people share the more recent their shared paternal ancestor once lived. The test subject's closest Y-DNA STR genetic surname matches are* ***NOT RANDOM****; they are dominated by individuals with Scottish or Irish-associated surnames, some of which like MacDowall (****red arrows****) recur among his Y-DNA results. Highlighted font denotes each surnames associated ethnicity or location of an earliest recorded paternal ancestor; Scottish/Scotland, Irish/Ireland, Irish/Scottish.*

Test Subject	Haplogroup	Closest Recurring Y-DNA STR Surname Matches (67 Y-DNA STR Markers, Genetic Distance) 4	5	6	7
Gillen	R-M222	Doherty/Dougherty/Daugherty (x5) Ryan (x2)	MacDowell/McDowell (x17) Carr (x2) Collins (x2) Quinn (x2)	Allen (x2) Carnes (x2) Connelly/Connolly (x2) Kane/O'Kane (x2) McBride (x3) McClellan/McClelland (x3) McGrath/McGraw/McGrew (x3) Hare/O'Hair (x2) Smith (x3) Stewart (x2) Sweeney (x5) Wade (x2) Webb (x2)	Biggins (x2) Cox (x2) Coyne (x4) Donlon (x3) Dowdy (x2) Ferguson (x2) Ford/Forde (x2) Fournier (x2) Gilmer/Gilmore (x3) Gorry (x2) Graham (x3) Henley (x2) Killeen/Killian (x2) Marion (x2) Martin (x2) McCann (x3) McCrary/McCreary/McCreery (x3) McDougall (x2) McGee/McGhee (x3) Murphree/Murphy (x2) Murray (x2) Newell (x2) O'Brien (x2) O'Donnell (x2) Stevens (x2) Wilson (x3)

Figure 2: *Mr. Gillen's closest recurring Y-DNA STR genetic surname matches. Surnames are shown at the point at which the first appear as a genetic match, figures in brackets represent the number of individuals with each surname at the 67 and 37 marker levels. For example, the first MacDowell to appear as a paternal genetic relative shares 62 of 67 genetic markers, although not all 17 males named MacDowell/McDowell may not match at that level. The test subject's closest recurring genetic matches are* ***NOT RANDOM****; they are dominated by Scottish and Irish surnames which is typical for his R-M222 paternal genetic marker which first appeared in Ireland before spreading into Scotland. Highlighted font indicates each surnames associated ethnicity; Irish, Scottish, Irish/Scottish-associated.*

Upon commercial ancestral Y-DNA testing the test subject did not match others named 'Gillen,' see **Figures 1**, **2**, **3**, and **4**. This indicates that the test subject may not be directly descended from a Gillen-Adam; literally the first male ('Adam') to take that surname who lived approximately 1,000 years ago when paternally inherited surnames became common. The test subject's Y-DNA results are dominated by both Scottish and Irish surnames, which indicates that when paternally inherited surnames first appeared, his paternal ancestor was living in either Ireland or Scotland, see **Figures 1**, **2**, **3**, and **4**. This mix of Y-DNA revealed genetically recurring Irish and Scottish surnames is not uncommon given his R-M222 paternal genetic marker which first appeared in Ireland before spreading into Scotland, see **Figures 2**, and **3**.

The STRs examined in the Y-DNA test are short repetitive sequences of DNA that can be amplified or deleted with each generation. In contrast, SNPs are far more permanent mutations. SNP testing can offer a more accurate glimpse of the precise chronological development of surnames among a group of related males. While SNP testing reveals a mix of Sottish and Irish-associated surnames, terminal SNP block display indicates that his paternal ancestry is most intricately linked with the Scottish MacFadden and Ferguson surnames, see **Figures 3** and **4**.

BigY Surname Matches			
Surname	Frequency	Min. SNP Difference	Max. SNP Difference
Burns/Byrne	3	21	30
Reilly/Riley	3	23	25
McFadden	3	24	29
Mcconihay/McConkey	3	29	30
Kelly	2	21	24
Bryant	2	25	28
Milligan/Mullican	2	26	30
Johnson/Johnston	2	27	28
Lennon/Linnan	2	29	30
Monahan	1	22	
Carey	1	24	
Farrell	1	24	
Keelty	1	24	
O'Rafferty	1	24	
Reed	1	24	
Bradner	1	25	
Riker	1	25	
Lafty	1	26	
Lindsay	1	26	
O'Malley	1	26	
kennedy	1	27	
Murray	1	27	
O'Neill	1	27	
Treacy	1	27	
Clark	1	28	
Dill	1	28	
Keig	1	28	
Leonard	1	28	
Wade	1	28	
Ward	1	28	
Woods	1	28	
Carr	1	29	
Cochrane	1	29	
dryden	1	29	
FINLEY	1	29	
Hagen	1	29	
Hartin	1	29	
LIND	1	29	
McBride	1	29	
McCampbell	1	29	
McClellan	1	29	
Murphy	1	29	
Ross	1	29	
Carroll	1	30	
Clarkson	1	30	
Galyean	1	30	
Gough	1	30	
Hearn	1	30	
Jennings	1	30	
Jordan	1	30	
Laird	1	30	
Liddane	1	30	
McClure	1	30	

Figure 3: *Mr Gillen's Y-DNA SNP matches. The more Y-DNA SNP mutations two people share the more recent their shared paternal ancestor once lived. The test subject's closest Y-DNA SNP genetic surname matches are* ***NOT RANDOM****; they are a mix of Scottish and Irish-associated surnames. Highlighted font indicates the ethnicity associated with each surname: Scottish, Scottish/Irish-associated, Irish.*

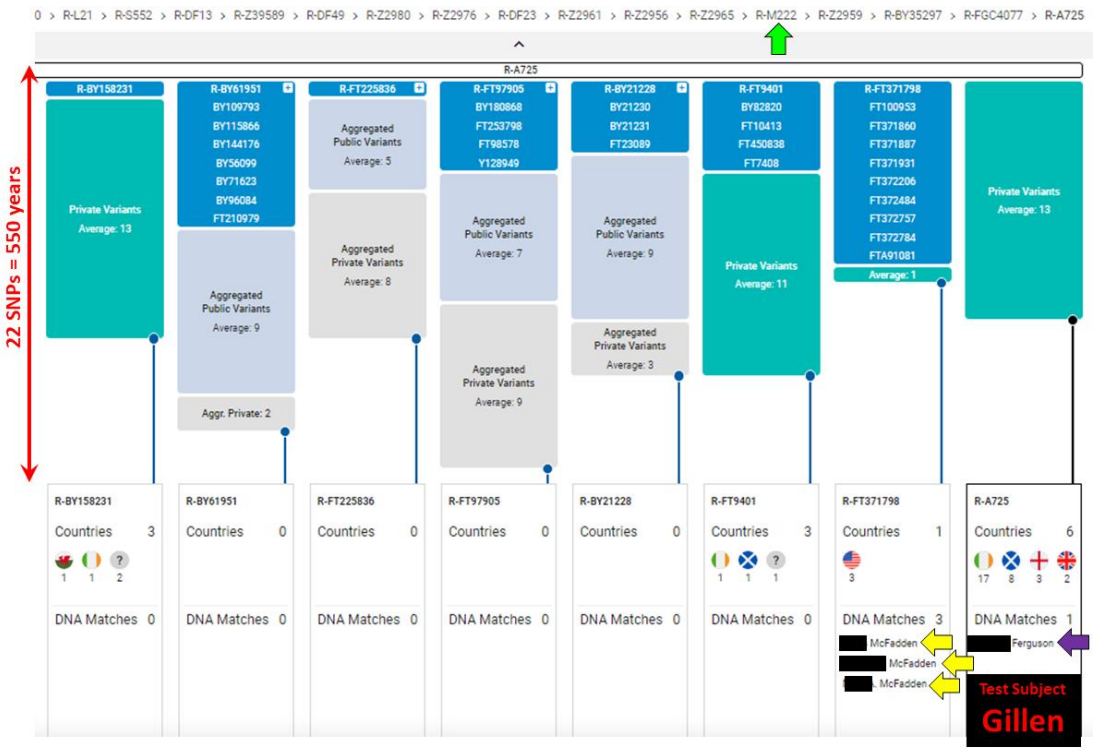

Figure 4: *Block display of Mr. Gillen's closest SNP matches. While the STRs examined in the Y-DNA test are prone to replication or deletion with each generation, SNPs are far more permanent mutations. SNP testing offers a more accurate glimpse of the precise chronological development of surnames among a group of related males. Research at Scottish Origenes has revealed that a Y-DNA SNP mutation will occur on average every 75 years in a patrilineal relationship, which means that a grandson can expect to differ from his grandfather in a single SNP mutation. However, the relationships revealed in a Y-DNA SNP test are not linear, which means that each SNP mutation can represent a generational difference (25 years). The test subject's terminal SNP block display reveals that the Ferguson (**purple arrow**) and McFadden (**yellow arrows**) surnames appeared among related Scottish males that carried the Irish R-M222 (green arrow) marker approximately 550 years ago.*

The Gillen Surname

Gillen is an Irish surname. However, the 1911 census of Ireland reveals several similar surnames including Gill*a*n, Gill*ia*n, Gillan*e*, *Mc*Gill*a*n, *Mc*Gill*i*an, *K*illen, and *McK*illen, see **Figure 5**. Since Irish surnames arose approximately 1,000 years ago in an agrarian society, farmers with each surname could still be found in early census data concentrated in the area where their surname first appeared or in the area where one's ancestors first settled. One can therefore examine the distribution of farmers named Gillen, Gillan, Gillian, Gillane, McGillan, McGillian, Killen, and McKillen to determine how many clans used those surnames. Early census data reveals the existence of at least 8 distinct Irish groups/clans that could have given rise to the test subject's Irish 'Gillen' surname, see **Figure 6**. Each group is potentially genetically distinct (each arising from a Gillen/McGillian/Killen/McKillen-Adam) and since the test subject carries the Gillen surname, his paternal ancestry is potentially linked to 1 of 8 locations within Ireland.

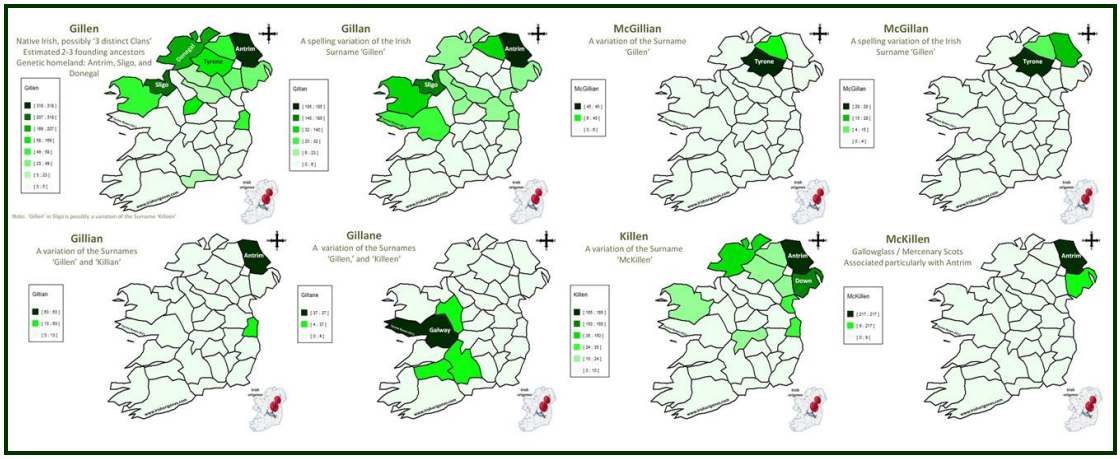

Figure 5: *Distribution mapping of the Gillen surname and variants in Ireland. The 1911 census of Ireland reveals the similar Gillen, Gillan, Gillian, Gillane, McGillan, McGillian, Killen, and McKillen surnames. Distribution mapping reveals that those surnames were not distributed evenly throughout Ireland but concentrate in specific Irish Counties. Image taken from the Irish Surnames database, free to view https://www.irishorigenes.com/surnames-database.*

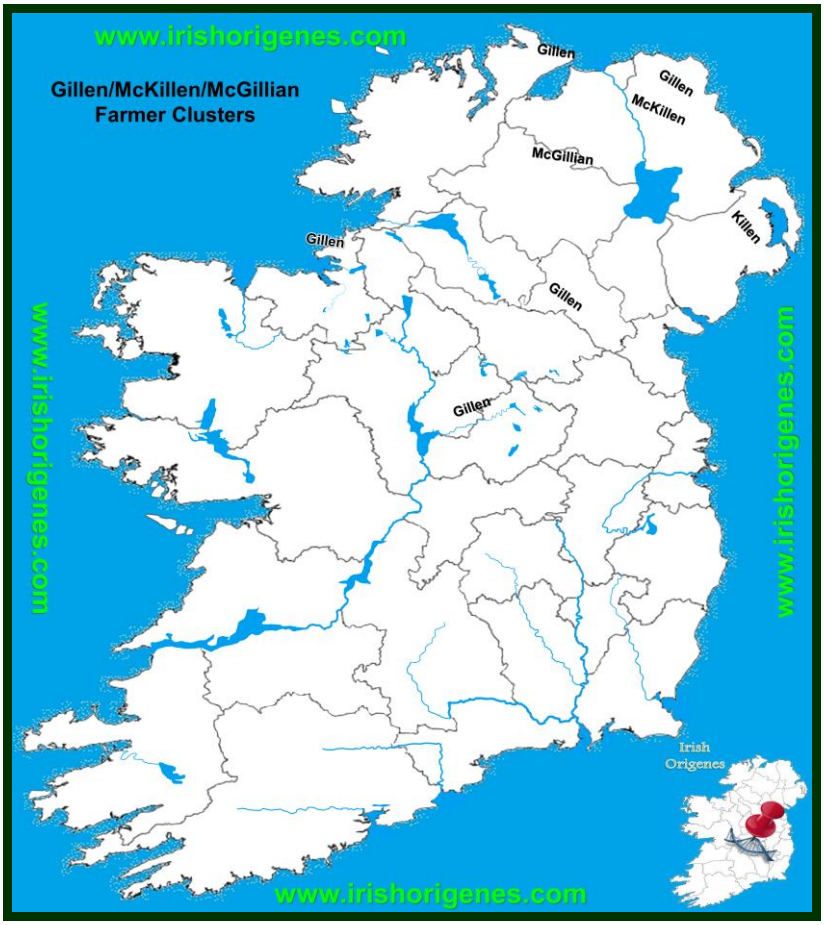

Figure 6: *The Gillen, McGillian, Killen, and McKillen farming communities. An examination of the distribution of farmers named Gillen, Gillan, Gillian, Gillane, McGillan, McGillian, Killen, and McKillen surnames reveals 8 geographically distinct groups. Each group may represent an unrelated clan, each potentially founded by an unrelated and genetically distinct Adam. The test subject's paternal ancestry is potentially linked to 1 of these 8 locations within Ireland. Each surname is positioned in the location where farmers with that surname concentrated in early census data. The most common spelling is detailed in each location. Surnames are positioned as they appear on the Irish Origenes Medieval Surnames map https://www.origenesmaps.com/maps/medieval-surnames-ireland. A surname search function is available at https://analysis.irishorigenes.com/surnames.*

A Paternal Ancestral link with Southwest Scotland

The method of using genetic surname matches as revealed by commercial ancestral Y-DNA testing to pinpoint a paternal ancestral genetic homeland works by exploiting the link between the Y chromosome, surname, and land, which are typically passed from father to son through the generations. In the absence of a link to the land the process becomes more challenging. The link with the land is greatest among the farming community, and since farmers can still be found farming the land where their ancestor lived when he first inherited his surname, or where one's ancestor first settled, one can plot where farmers with the surnames that appear in one's Y-DNA results originate and identify an area common to most if not all. This means that upon Y-DNA testing a male named 'Gillen' from County Longford will be a Y-DNA genetic match to males named Carolan, Tynan, and Stakem; surnames associated with the Irish Midlands. In contrast, a 'Killen' male from County Down will be a Y-DNA genetic match to individuals with surnames associated with Southeast Ulster in Northern Ireland.

Commercial ancestral Y-DNA testing revealed that the Scottish 'Ferguson' and 'McFadden' surnames dominate his closest SNP matches, while the Scottish 'McDowall' surname dominates his STR matches, see **Figures 2** and **4**. The Y-DNA results reveal that the test subject's paternal ancestor lived in a specific part of Scotland among a group of males among whom appeared the Ferguson, MacFadden, and MacDowall surnames. Distribution mapping of Scottish farmers named Ferguson, MacFadden, and MacDowall reveals that they only occur together within Southwest Scotland in an area where the test subject's R-M222 paternal genetic marker predominates in the local population, see **Figure 7**. An examination of the surnames associated with Galloway in Southwest Scotland reveals many of the surnames that appear among the test subject's closest and most frequent Y-DNA genetic relatives, see **Figures 2**, **3**, and **8.** The test subject's Y-DNA results reveal a paternal ancestral link with Galloway in Southwest Scotland.

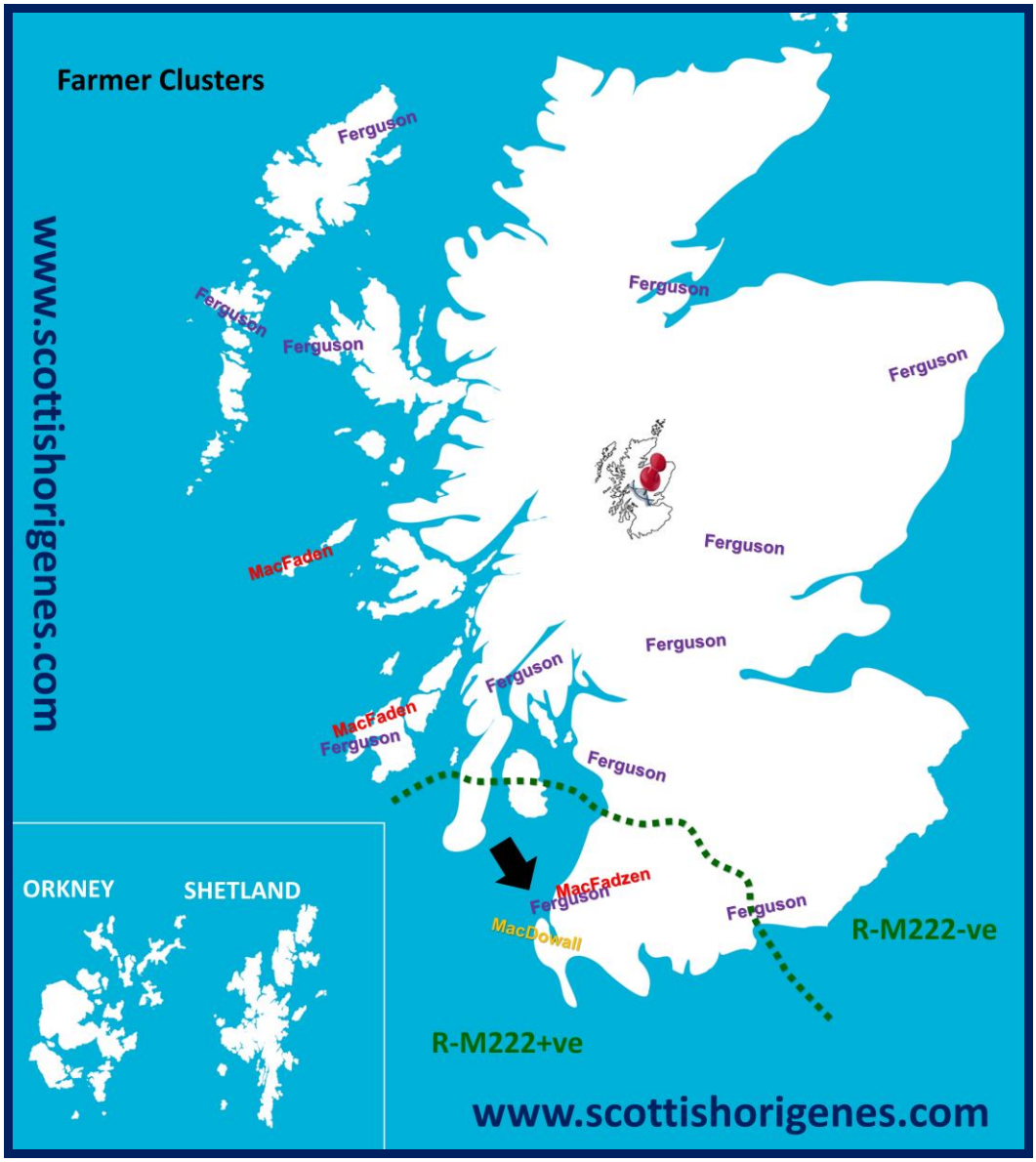

Figure 7: *Overlay mapping reveals a paternal ancestral origin within Southwest Scotland. Y-DNA testing reveals that the Ferguson, MacFadden, and MacDowall surnames arose among related males living in a specific Scottish location. Distribution mapping of Scottish farmers named Ferguson, MacFadden/MacFadzen, and MacDowall reveals that they only occur together within Southwest Scotland in an area where the test subject's R-M222 paternal genetic marker predominates in the local population. Each surname is positioned in the location where farmers with each surname concentrated in early census data. The most common spelling is detailed in each location.*

Figure 8: *The Surnames of Galloway in Southwest Scotland. An examination of the surnames of Southwest Scotland reveals the Ferguson, MacFadden/MacFadzen, and MacDowall (**black arrow**) surnames that dominate the test subject's Y-DNA matches surrounded by others that also appear as close recurring matches (**red arrows**). Many Scottish surnames denote the origin or ethnicity of their founding 'Adam,' and an examination of the surrounding surnames reveals 'Ireland' (**green arrow**). These surnames arose among the descendants of Gaelic Irish males who Conquered Southwest Scotland in around 1100AD. Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed in each location. Surnames in **red font** (like Y-DNA matching **MacDowall**) are associated with a single geographical area within Scotland. Image taken from the Scottish Origenes Surnames of Scotland map, now free to view: **www.origenesmaps.com***

The Clan Territories of Southwest Scotland

By examining the locations of the castles and towerhouses that are historically associated with a particular surname, it reveals that medieval Scotland was a patchwork of territories dominated by nearly 400 notable clans and families. Modern commercial ancestral Y-DNA testing and research at Scottish Origenes has revealed that almost everyone with Scottish paternal ancestry will be genetically related to at least one of these prominent clans or families that once ruled over one's paternal ancestral genetic homeland. An examination of the castles and towerhouses of Southwest Scotland reveals an area dominated by Gaelic clans, many of whom appear among his closest recurring Y-DNA matches, see **Figure 9**.

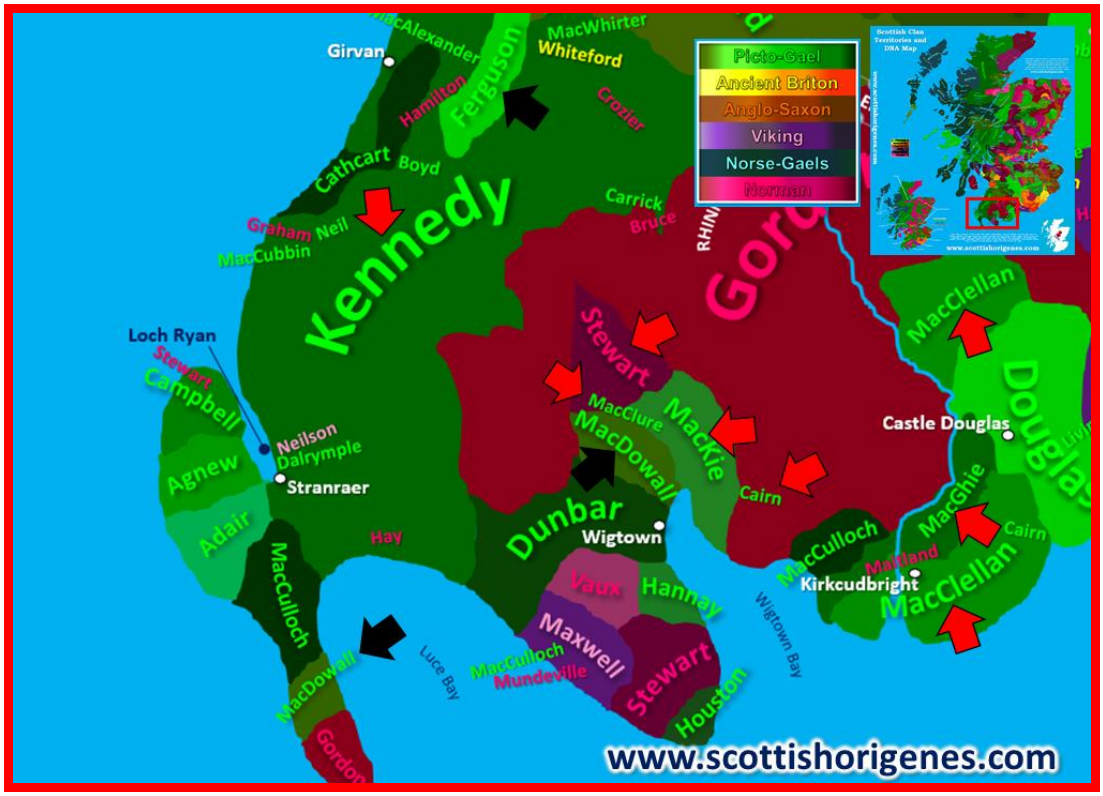

Figure 9: *The principal Medieval Clans and Families of Galloway in Southwest Scotland. An examination of the clans and families of Southwest Scotland reveals an area dominated by Gaelic clans. The map reveals that the test subject's closest Ferguson and MacDowall (**black arrows**) genetic relatives dominated areas of Southwest Scotland. Many of the surrounding clans and families also appear among the test subject's closest recurring Y-DNA matches (**red arrows**). The clan map was reconstructed based on the location of castles and towerhouses and their historically associated clans and families. Image taken from the Scottish Origenes Clans of Scotland map, now free to view:* ***www.origenesmaps.com***

Mr. Gillen's 'Scottish' Paternal Ancestral Genetic Homeland

Early census data reveals that the Fergusons, MacFadden/MacFadzen, and MacDowalls occur in closest proximity to one another in the farmland that lies between Ballantrae and Girvan in Galloway in Southern Ayrshire, and it is there that the test subject's Scottish Paternal Ancestral Genetic Homeland is to be found, see **Figure 10**. It was there that the test subject's direct male ancestor lived approximately 550 years ago. His paternal ancestor lived among a tribal group of related Gaelic males among whom arose surnames like Ferguson, MacFadden/MacFadzen, MacDowall, and MacLellan among many others. When one's ancestors and their genetic relatives have lived in an area for a long time, one will often find evidence of their links within that area in the surrounding monuments and placenames. An examination of the surrounding area reveals castles and towerhouses associated with the test subject's Ferguson and MacDowall genetic relatives, see **Figures 10**. The test subject's ancestors will also have left evidence of their long ancestral links with this area in its history, and in the DNA of the current inhabitants.

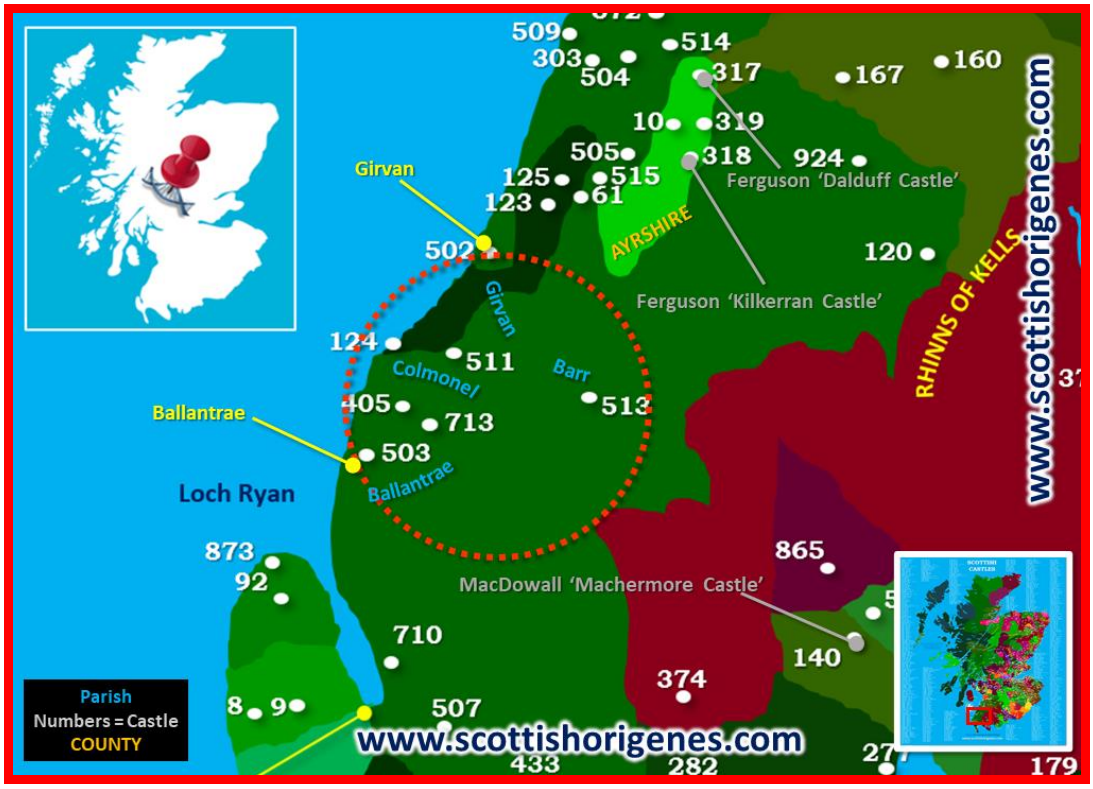

Figure 10: *Mr. Gillen's Scottish Paternal Ancestral Genetic Homeland. Y-DNA testing reveals that the Fergusons, MacFadden/MacFadzen, and MacDowalls surnames arose among related Scottish males. Census data reveals that those surnames occur in closest proximity to one another in the farmland that lies between Ballantrae and Girvan in Galloway in Southern Ayrshire, and it is there that the test subject's Scottish Paternal Ancestral Genetic Homeland is to be found (**orange broken circle**). It was there that his paternal ancestor lived when surnames first appeared in Scotland. In the surrounding area one finds evidence of the test subject's Ferguson and McDowall genetic relatives in the castles and towerhouses one finds there. Mr. Gillen's paternal ancestors will also have left evidence of their ancestral links with this area in its history, but also in the DNA of the current inhabitants. Image taken from the Scottish Origenes Castles of Scotland map, now free to view: **www.origenesmaps.com***

Acquiring the 'Gillen' Surname

The test subject's Scottish ancestors lived in an area where approximately 5% of Scottish surnames have gone extinct as a direct result of the Plantation of Ulster, when many Scots departed for Ulster in Ireland in around 1600AD. It is quite possible therefore that the test subject's paternal ancestor was indeed a 'Scottish Gillen' from Southern Ayrshire, and that his Gillen surname went extinct among the Galloway farming community by the 19th Century. However, it is also possible that the test subject's paternal ancestor was originally either a Ferguson, MacFadzen or MacDowall who ventured to Ireland during the Plantation of Ulster where a descendant would then acquire the 'Irish Gillen' surname. A more recent Plantation (post 1600AD) link with Ireland is supported by the test subject's Y-DNA STR results which clearly demonstrate that many of his closest genetic relatives record earliest paternal ancestral links with Ireland, see **Figure 1**.

The Plantation of Ireland was a highly organised affair, whereby whole Scottish and English communities migrated and settled together within Ireland. They would repeat a pattern of migration and settlement until they had colonised much of Ulster. As a result, the Plantation surnames in each area of Ulster mirror those of

their Scottish origin. Strikingly, an examination of the surnames associated with Mid-Antrim in Ulster in Northeast Ireland reveals native Irish Gillens, Killens, and McKillens together with Scottish Planter Fergusons, MacFaddens, and McDowells, all in the farmland that surrounds Ballymena Town, see **Figure 11**.

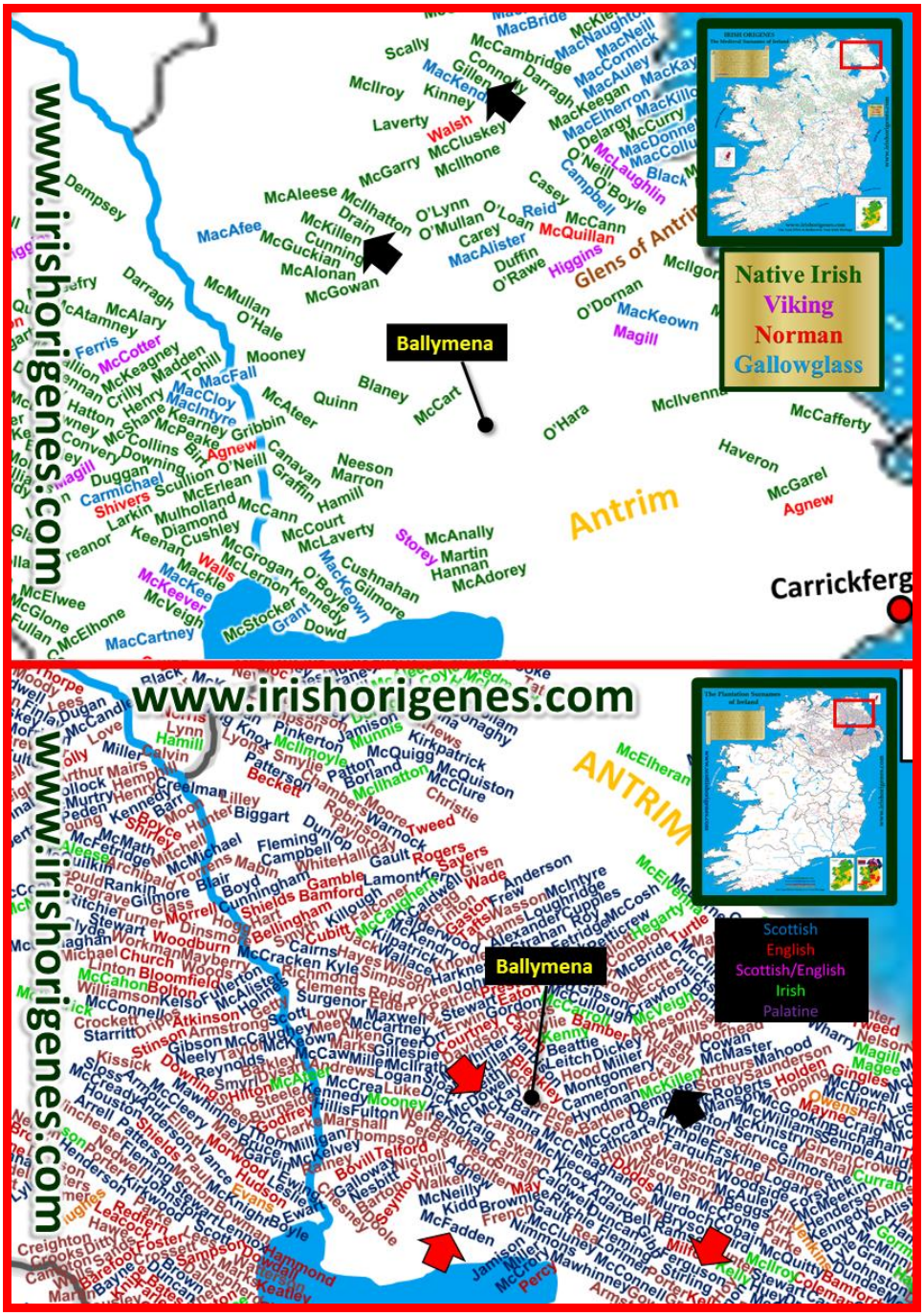

Figure 11: *The Surnames of Mid-Antrim in Ulster. An examination of the Medieval (**top panel**) and Plantation Surnames (**bottom panel**) of Mid-Antrim reveals the Gaelic Irish Gillen, Killen, and McKillen (**black arrows**) together with Plantation Ferguson, McDowell, and McFadden (**red arrows**) in the farmland that surrounds Ballymena Town. These results indicate that the test subject's Plantation Scottish ancestor from Southern Ayrshire in Galloway had settled in the farmland surrounding Ballymena, and that a non-paternal event has occurred in that area which resulted in the test subject's paternal ancestor acquiring the Gillen surname. Image taken from the Irish Origenes Surnames of Ireland maps, now free to view: **www.origenesmaps.com***

Irish Gaels

The hundreds of Y-DNA Case Studies conducted at Scottish Origenes has produced a Y-DNA map or Scotland, see **Figure 12**. That map reveals that the modern Scots are a diverse bunch descended from Neolithic farmers, Celts (Ancient Britons, Picts, Scots and Irish Gaels), Romans, Anglo-Saxons, Vikings, and Normans. Clues to the ethnic origin of the test subject's paternal ancestors can be found in his Irish R-M222 genetic marker and the Irish surnames that appear among his Y-DNA results.

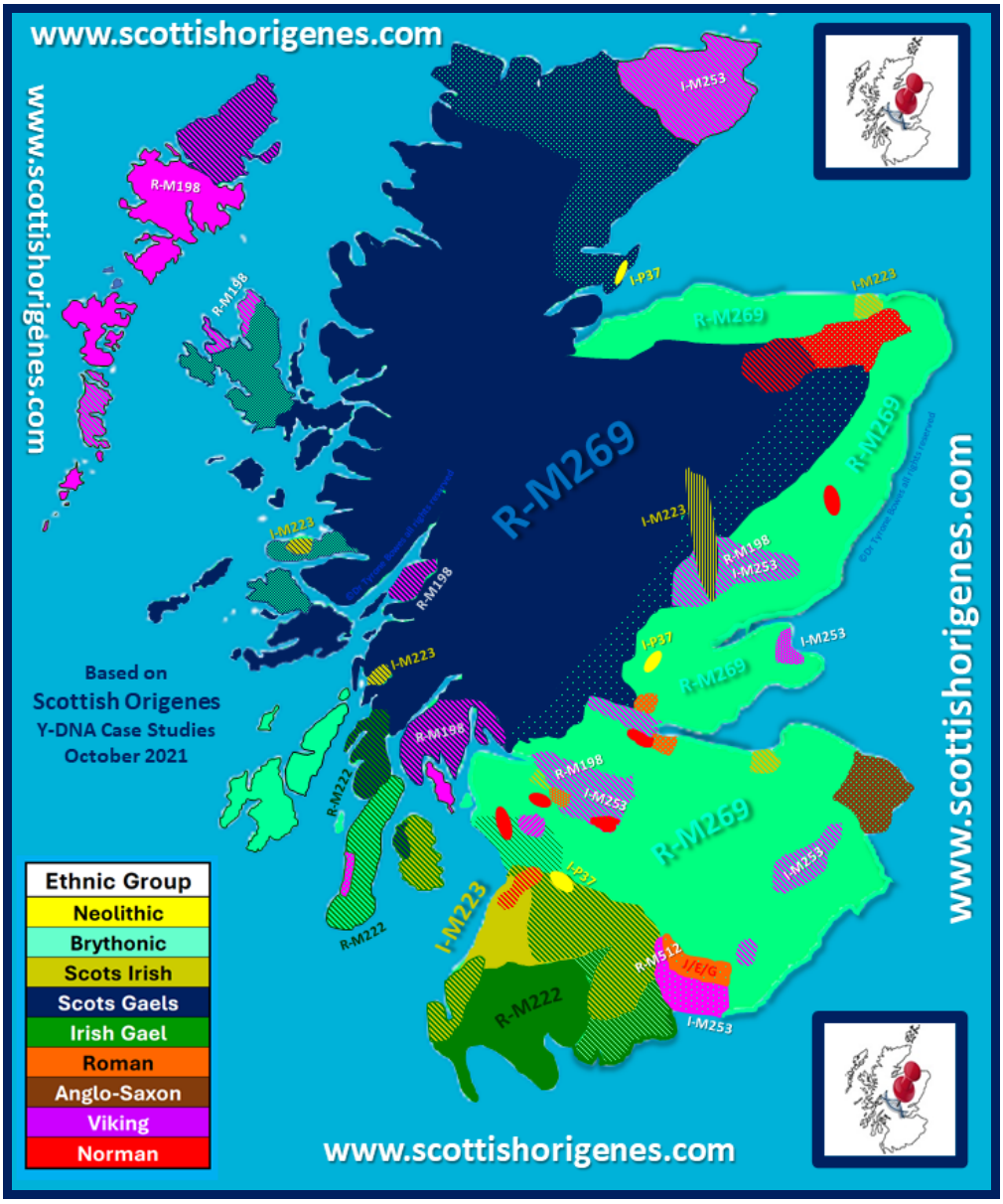

Figure 12: *The Scottish Origenes Y-DNA ethnicity map of Scotland. Y-DNA Case Studies at Scottish Origenes reveals an ethnicity map of Scotland. The test subject's Irish paternal ancestor carried the R-M222 genetic marker and arrived in Southwest Scotland in around 1100AD.*

The Irish R-M222 Y-DNA paternal genetic marker first appeared in a single male who lived in the far northwest of Ireland approximately 1,800 years ago. This marker reveals that Mr. Gillen's paternal ancestors lived near, or on, the Inishowen peninsula in the far Northwest of Ireland until around 900 years ago. Commercial

ancestral Y-DNA testing and extensive Y-DNA Case Studies at Irish and Scottish Origenes have revealed areas beyond Inishowen shores where R-M222^{+ve} males predominate in the local population, particularly along Irelands west coast (Moy River valley in Mayo), Southern Ulster, Galway, and Galloway (Southwest Scotland). Clues as to why some of these R-M222^{+ve} Gaels left Inishowen and began colonising throughout Ireland and Scotland can be found in their origin; Donegal (*Dún na nGall* '**base or fort of the Foreigner**') and their descriptive surnames which they took with them like Gallagher (*Ó Gallchobhair* meaning '**Foreign helper**') who upon settling along the west coast of Ireland acquired new surnames like Higgins (*O'hUigin* meaning '**Viking**') and Halloran (*O'hAllmhurain* meaning '**Pirate** or **Stranger from overseas**'). Modern DNA science indicates that during the appearance of surnames (800AD onwards) the R-M222^{+ve} Gaels of Inishowen had formed an alliance with Scandinavian 'Vikings,' and that Christian-Gael and Heathen-Gall (*Gall = foreigner*) had together raided and colonised throughout Ireland and beyond. In support of this Viking-Inishowen connection, research at Irish Origenes has uncovered three individuals with recent Inishowen ancestry but with Scandinavian Y-DNA: clear evidence of Scandinavian contact with Inishowen.

R-M222^{+ve} males from Inishowen took part in the Hiberno-Norse Conquest and colonisation of Southwest Scotland which was led by the King of Norway 'Magnus Barelegs' in about 1100AD. The land in Southwest Scotland they conquered became 'Galloway' meaning 'land of the foreign Gael;' a term used by the surrounding 'Scots' to describe the Gaels from Inishowen in Northwest Ireland who settled there. The Inishowen Gaels took with them their genetic markers (like R-M222) and their surnames like McGee (McGhie), Kelly, and McLaughlin (MacLachlan). However, in the areas within Southwest Scotland where R-M222^{+ve} Irish Gaels settled permanently they and their descendants acquired new surnames like MacDowall, McLellan, and MacFadden.

The Dohertys, McLaughlins and McGees that often feature prominently among R-M222 Y-DNA results reach their highest concentration in, or close to the Inishowen peninsula, see **Figures 2** and **13**. In fact, the territory of the Dohertys, who dominate the genetic matches of R-M222^{+ve} males, incorporated much of Inishowen together with the historic centre of 'Grianan of Aileach' where the R-M222 marker reaches its highest concentration in Ireland, see **Figures 2** and **14**. Conquest beyond Inishowen would literally allow one's ancestors to 'make a name for themselves,' and what the DNA reveals is an explosion of newly acquired surnames among the Inishowen R-M222^{+ve} Gaelic Irish Conquerors of Galloway in Southwest Scotland.

Figure 13: *The Surnames of Inishowen in Donegal in Northwest Ireland. The test subject's paternal ancestor lived in Northwest Ireland prior to his arrival within Southwest Scotland. An examination of Inishowen surnames reveals the Dohertys, McLaughlins, and McGees that dominate the genetic matches of males that carry the R-M222 marker (**yellow arrows**). Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed in each location. Image taken from the Irish Origenes Medieval Surnames of Ireland map, now free to view:* ***www.origenesmaps.com***

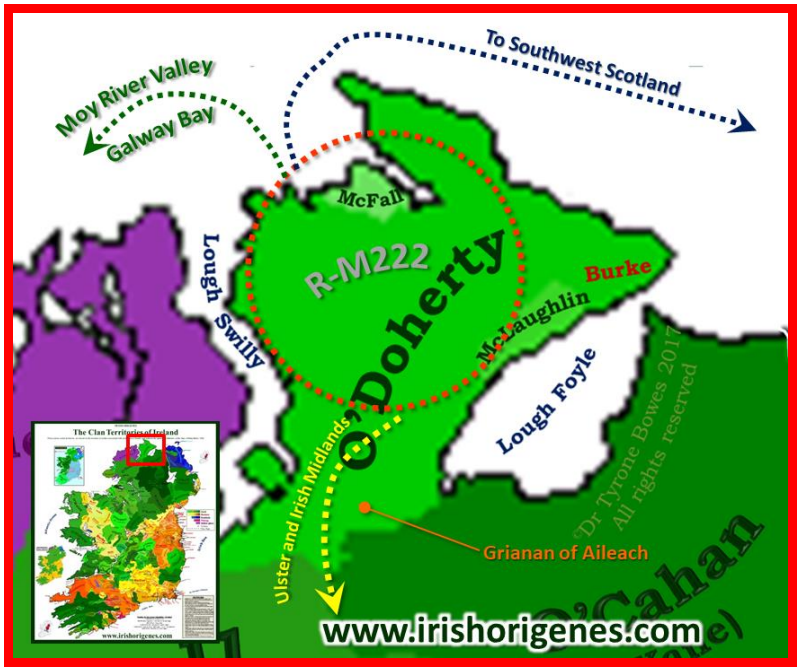

Figure 14: *The Clan Territories of Inishowen. An examination of the Irish Clan territories map reveals that the R-M222^{+ve} Dohertys and McLaughlins ruled almost the entire Inishowen peninsula. The test subject's paternal ancestor lived in Northwest Ireland prior to his arrival within Southwest Scotland. The R-M222 ancestral homeland is marked by the historic centre known as 'Grianan of Aileach.' Image taken from the Irish Origenes Clan Territories of Ireland map, now free to view:* ***www.origenesmaps.com***

FROM GAULISH REFUGEE TO IRISH GAEL

The test subject's Y-DNA results indicate an even earlier paternal link with Central Europe, and that his ancestors were in fact the Celtic people who dominated Central Europe until the Roman Conquest of Gaul in the 1st Century BC. It was Roman Conquest that resulted in his paternal Celtic/Gaulish ancestors seeking refuge in Britain. However, the Roman Conquest of Britain would push his Gaulish ancestors north into Scotland, and eventually into Ireland, an event that would simultaneously see his ancestors evolve from Continental Gauls to Irish Gaels.

How to confirm the Gillen Paternal Genetic Homelands

- One must keep in mind that this is a scientific DNA approach to identifying an origin. As such, the connection to an identified area(s) can be confirmed by Y-DNA testing males with the surname of interest from the identified location(s).
- The most recent link with Mid-Antrim can be confirmed by Autosomal DNA testing! I recommend DNA testing with Ancestry.com as they have the largest autosomal DNA database.
- The Scottish origin within Southern Ayrshire can be confirmed by Y-DNA testing males named MacDowall from Southwest Scotland.
- The earlier origin within Ireland can be confirmed by Y-DNA testing males named Doherty from Inishowen in Northwest Ireland.

TO CONTACT SCOTTISH ORIGENES FOR A FREE CONSULTATION ON YOUR Y-DNA RESULTS EMAIL DR. TYRONE BOWES:
tyronebowes@gmail.com